

REMARKS

Claims 284-512 were previously pending in this application. Claims 330 and 336 have been amended. Claims 513-529 have been added and no claims have been canceled by this paper. Accordingly, claims 284-529 as amended and added above are presented for further examination.

Relatively minor amendments have been made to claims 330 and 336. In these two claims, the recited "incorporating" step has been changed to a "providing" step in order to conform both dependent claims with the first step recited in claim 329 from which both claims depend. By so doing, a proper antecedent basis has been provided for the subject matter of claims 330 and 336. It was in Applicants' May 1, 1999 Fourth Supplemental Amendment that the "incorporating" step in claim 329 had been amended to a "providing" step.

It is believed that no new matter has been inserted by the above amendments to claims 330 and 336.

New claims 513-529 have been added. Claims 513-516 recite the Markush members for seven pathogenic microorganisms listed in the instant specification on page 29, penultimate paragraph. These seven pathogens include *Streptococcus pyogenes*, *Neisseria meningitidis*, *Staphylococcus aureus*, *Candida albicans*, *Pseudomonas aeruginosa*, *Neisseria gonorrhoeae* and *Mycobacterium tuberculosis*. Further added are claims 517 and 518 which depend from claims 513 and 514, respectively. Both of claims 517 and 518 specifically recite the *Neisseria gonorrhoeae* pathogen. Another claim added above, claim 519, depends from pending claim 323, and it is specifically directed to the *Neisseria gonorrhoeae* bacterium and three Markush members for the antibiotic recited in claim 323.

Two new sequencing claims, 520 and 521, have been added. Like pending claim 373, claims 520 and 521 are both directed to a process for determining the sequence of a nucleic acid of interest. Three steps are recited in claim 520. The first step is "providing or generating labeled nucleic acid fragments complementary

to said nucleic acid of interest or to a portion thereof, each of said labeled fragments comprising one or more modified nucleotides which comprise detectable or self-indicating labels and said one or more modified nucleotides being modified on the sugar, phosphate or base moieties thereof." The second step of claim 521 comprises "detecting the labeled nucleic acid fragments within a sequencing gel." The third step in claim 521 involves "determining the sequence of said nucleic acid of interest."

Claim 521 recites a single step, that of "detecting within a sequencing gel one or more labeled nucleic acid fragments complementary to said nucleic acid of interest or to a portion thereof, each of said labeled fragments comprising one or more modified nucleotides which comprise detectable or self-indicating labels, said one or more modified nucleotides being modified on the sugar, phosphate or base moieties thereof."

As in the case of Applicants' other pending sequencing claims, notably claims 329 and 373, it is believed that the subject matter of claim 520 is fully supported by the specification. See, for example, page 84, second paragraph.

Claims 521-525 have been added as embodiments of claims 520 and 521. Claims 522 and 524 mimic pending claims 331 and 332, and are directed to specific compositions for the modified nucleotides recited in claims 520 and 521. Claim 523 is directed to the specific sugar modified nucleotide recited in claims 520 and 521. Claim 525 also depends from claim 520 and is directed to the "detecting step [comprising] localizing said labeled nucleic acid or said labeled nucleic acid fragments by means of self-indicating nucleotide or nucleotides." Thus, by its language, claim 525 is similar in scope to pending claims 374 and 375, which depend from claims 373 and 329, respectively. Claim 526 depends from claims 520 and 521 and it is directed to the nucleic acid of interest comprising or being derived from *Neisseria gonorrhoeae*. In that respect, claim 526 follows claims 517 and 518, discussed *supra*.

Claims 527-529 depend from claims 332, 348, and 524, respectively. All three new claims recite that "y and z comprise H." Support for the subject matter of claims 526-528 is found variously in the specification.

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See, for example, page 9, lines 9-13 (beginning with "wherein each of x, y and z represents . . ."); and page 12, third paragraph (beginning with "The letters x, y and z represent groups attached to the 5', 3', and 2' positions of the sugar moiety. They may be any of . . . and *at least one will be HO- or H-*").

No new matter is believed to be inserted by the presentation of new claims 513-529 above. Their entry is respectfully requested.

Favorable action on the pending claims is respectfully requested.

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**SUMMARY AND CONCLUSIONS**

Seventeen claims (and twenty-one claims counting multiple dependencies) have been added above in the form of new claims 513-529. Claims 330 and 336 have been amended. No claims have been canceled by this paper. Thus, claims 284-529 are presented for further examination in this application.

The fee for adding claims 513-529 is \$534, based upon the presentation of two new independent claim ( $2 \times \$78 = \$156$ ) and twenty-one additional new claims ( $21 \times \$18 = \$378$ ). The Patent and Trademark Office is hereby authorized to charge the requisite \$534 claim fee to Deposit Account No. 05-1135. No other fee or fees are believed due in connection with this paper. In the event that any other fee or fees are due, however, authorization is hereby given to charge the amount of any such other fee(s) to Deposit Account No. 05-1135, or to credit any overpayment thereto.

If a telephone conversation would further the prosecution of the present application, Applicants' undersigned attorney request that he be contacted at the number provided below.

Respectfully submitted,



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